APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/540,394	03/31/2000	William Alan Holder	END9-2000-0013-US1	2193

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EXAMINER
WOOD, WILLIAM H

ART UNIT	PAPER NUMBER
2124	

DATE MAILED: 10/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

		Application No.		Applicant(s)	
Office Action Summary		09/540,394		HOLDER ET AL.	
		Examiner		Art Unit	
		William H. Wood		2124	

-- The MAILING DATE of this c mmunication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 April 2000* .

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle,* 1935 C.D. 11, 453 O.G. 213.

Disp sition of Claims

4)☒ Claim(s) *1-40* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *31 March 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)   4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)   5) ☐ Notice of Informal Patent Application (PTO-152)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *2* .   6) ☐ Other: .

DETAILED ACTION

Claims 1-40 have been examined.

Information Disclosure Statement

The Information Disclosure Statement filed on March 31, 2000 has been

considered.

Drawings

The drawings submitted were approved by the draft person.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-40 are rejected under 35 U.S.C. 102(b) as being anticipated by Breslau

et al. (USPN 5,774,728).

In regard to claim 1, Breslau disclosed the limitations:

[i] *a method of communicating between programs having different machine*

context organizations (column 1, lines 7-13; client-server applications

demonstrates *communicating between programs*; heterogeneous execution

environments demonstrate *different machine context organizations*)

[ii] *determining, at compile time* (column 1, lines 58-59; column 9, lines 2-5), *which*

savearea layout of a plurality of savearea layouts is to be used to save

information relating to a calling program (column 1, line 58 to column 2, line 10

indicate multiple target saveareas through the different execution environments;

column 2, line 65 to column 3, line 5 indicate communication-type statements

which are inherently provided by RPC found in column 9, lines 41-55 (specifically

the definition of parameters); though not stated RPC is a subset of XDR, External

Data Representation, which is a means for providing register communications

between differing architectures, which is applicant's definition of savearea

provided in the specification on page 9, lines 4-15)

iii) *selecting, at compile time, a linkage service from a plurality of linkage services*

to be used in communicating between the calling program and the callee

program (column 2, lines 50-59; procedure calls communicating and column 9,

lines 41-55; RPC the protocol for procedures communicating; once the

architectures are determined the method for communicating through the selected

protocol is selected, column 10, lines 3-40, this provides the linkage service)

iv) *wherein the calling program and said callee program have different machine*

context organizations (column 1, line 65 to column 2, line 1; execution

environments are the *different machine context organizations*)

In regard to claim 2, Breslau disclosed the limitation *wherein said determining is based*

upon one or more attributes of said callee program (column 9, lines 41-46; here client is

the callee which determines the initialization parameters).

In regard to claim 3, Breslau disclosed the limitation *wherein one attribute of the one or more attributes comprises a size of one or more registers to be used by said callee program* (column 2, lines 1-4 indicate different processors and therefore different register sizes).

In regard to claim 4, Breslau disclosed the limitation *wherein said determining is further based on a target architecture mode* (column 2, lines 1-4).

In regard to claim 5, Breslau disclosed the limitation *wherein said selecting is based upon the determined savearea layout* (column 2, line 66 to column 3, line 5 indicates the communication-type code, which is RPC or some other protocol used in a manner dependent on the execution environments' needs and thus providing the linkage in accordance with the savearea, column 9, lines 41-55).

In regard to claim 6, Breslau disclosed the limitation *wherein said linkage service comprises at least one of a calling service and a returning service* (RPC performs calling and returning).

In regard to claim 7, Breslau disclosed the limitation *wherein at least two savearea layouts of the plurality of savearea layouts coexist within a single executable module* (column 1, line 58 to column 2, line 10).

In regard to claim 8, Breslau disclosed said limitations *wherein said determining and said selecting enable use of a source code that has at least one of the following:* [a] *a reduced amount of dual path source code* (column 1, lines 48-55 indicates this is the very situation which the Breslau is creating), [b] *natural parameter passing to/from a variety of caller types* (column 1, lines 7-14 indicates variety of execution environments), [c] *and natural exploitation of a large architecture, where desired* (column 1, lines 32-55 indicates many architectures encompassed including a mainframe).

In regard to claim 9, Breslau disclosed the limitation *wherein said source code comprises at least one common name usable in referencing one or more analogous fields in at least two savearea layouts of said plurality of savearea layouts to reduce dual path source code* (column 1, line 58 to column 2, line 10 indicates all the elements of the claim however does not use the term "common name usable in referencing", however this is inherent due to the fact that Breslau creates on program with multiple sections for differing execution environments and therefore must communicate via common names between sections).

In regard to claim 10, Breslau disclosed the limitation *wherein said different machine context organizations comprises different register sizes* (column 2, lines 1-4 indicates differing architectures, which are commonly known to have differing register sizes).

In regard to claims 11-20 and 21, the limitations of the claims are the same as for the above claims 1-10 except directed toward a system. This is included in Breslau (column 1, lines 8-10) and therefore the same arguments for rejection are applied here as well.

In regard to claims 22-31, the limitations of the claims are the same as for the above claims 1-10 except for the additional explicitly stated computing elements. However, these elements are inherent to a computing environment and therefore the same arguments for rejection are applied here as well.

In regard to claim 32, Breslau disclosed the limitation *wherein said determining is based upon one or more attributes of the calling program* (column 2, lines 1-4 indicates differing attributes for differing architectures; column 1, line 58 to column 2, line 10 indicates one single source code with multiple section for multiple execution environments; and column 2, lines 50-59 and column 2, line 66 to column 3, line 5 indicates that the communication between the two environments is determined by attributes of those environments through the use of communication-type source code in conjunction with the communicating protocol such as RPC mapping the two environments needs to one another).

In regard to claim 33, Breslau disclosed the limitation *further comprising performing said determining and said selecting for a caller program and calling program having similar*

machine context organizations (inherent in Breslau as nothing determines the degree of similarity of the multiple execution environments; the environments could be any that may exist, all the way from identical to complete opposite).

In regard to claim 34, Breslau disclosed the limitations:

i) *wherein said plurality of savearea layouts coexist within a single executable module* (column 1, line 58 to column 2, line 10)

ii) *and wherein at least one savearea layout of said plurality of savearea layouts is usable when said calling program and said callee program have different machine context organizations* (column 1, line 58 to column 2, line 10)

iii) *and wherein at least one other savearea layout of said plurality of savearea layouts is usable when a calling program and a callee program have similar machine context organizations* (inherent in Breslau as nothing determines the degree of similarity of the multiple execution environments; the environments could be any that may exist, all the way from identical to complete opposite)

In regard to claim 35-37, the limitations are the same as for claim 32-34 above with the exception that claims 35-37 are directed toward a system base claim. However, the base claims for both 32-34 and 35-37 are rejected in a similar manner, so claims 35-37 are rejected in the same manner as claims 32-34.

In regard to claims 38-40, the limitations are the same as for claim 32-34 above with the exception that claims 38-40 are directed toward a base claim with additional explicitly stated computing elements. However, the base claims for both 32-34 and 38-40 are rejected in a similar manner, so claims 38-40 are rejected in the same manner as claims 32-34.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure as follows.

a) Vasudevan et al. (USPN 5,887,172) taught the claimed concepts of melding application procedures communicating and calling separate application procedures of a different architecture. Also, taught RPC.

Correspondence Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Wood whose telephone number is (703)305-3305. The examiner can normally be reached 7:30am - 5:00pm Monday thru Thursday and 7:30am - 4:00pm every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (703)305-9662. The fax phone numbers for the organization where this application or proceeding is assigned are (703)746-7239 for regular communications and (703)746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

William H. Wood
October 21, 2002

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